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ABSTRACT

The 1989 document, "Curriculum and Evaluation Standards for School Mathematics," provides a vision and a framework for revising and strengthening the K-12 mathematics curriculum in North American schools and for evaluating both the mathematics curriculum and students' progress. When completed, it is expected that the Addenda Series will consist of 22 supporting books designed to interpret and illustrate how the vision could be translated into classroom practices. Targeted at mathematics instruction in grades K-6, 5-8, and 9-12, the themes of problem solving, reasoning, communication, and connections are woven throughout the materials, as is the view of assessment as a means of guiding instruction. This book, "A Core Curriculum," is intended to provide instructional ideas and materials that will support implementation of a core curriculum in grades 9-12. The preface identifies issues that must be addressed in transition to a core curriculum as it reshapes mathematical content, pedagogy, and student assessment. Five chapters present: (1) a discussion of the changes in the nature of mathematics instruction; (2) matrices as an example of a mathematical topic now introduced in a core curriculum previously reserved for college bound students; (3) a crossover curriculum model consisting of two parallel course sequences that follow the same syllabus, including sample lessons reflecting four levels of depth appropriate for the two sequences; (4) enrichment and differentiated curriculum models for implementation of a core curriculum, including sample lessons from selected topics representative of these models; and (5) a plan for

changing to a core curriculum, presenting six pnases for implementation: awareness, commitment, planning, development, implementation, and evaluation. Appendices I and II present model syllabi for a crossover curriculum and a differentiated curriculum. (Seventy-eight references and an annotated bibliography of core resources are provided.) (MDH)

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